I.

RISK PROFILE OF AMERICAN INDIANS IN ARIZONA:

AN OVERVIEW OF SELECTED HEALTH PROBLEMS AND HEALTH RISKS AMONG AMERICAN INDIANS AND ALL RESIDENTS OF THE STATE IN 2017

The risk profile presented on the following page summarizes how American Indians as a group compared in 2017 to the state average on 65 measures of health status. The 65 indicators used in the profile are individual measures of the various dimensions or facets of health status. The profile uses the percentages a racial/ethnic group is above or below the statewide average on each of the specific measures. In order to represent the level of each indicator for American Indians in comparison to the overall state level, the following formula was used:*

$$\left[\frac{\text{THE VALUE OF A RATE OR RATIO IN A SPECIFIED GROUP}}{\text{THE AVERAGE VALUE OF A RATE OR RATIO FOR ALL GROUPS}} - 1.0 \right] \times 100$$

The above formula produces a score of 0.0 for a group with the same value as the statewide average. A negative value indicates better than average standing on an indicator. A positive value indicates worse than average standing on an indicator*. The profile visually describes the better-than-average and worse-than-average clusters of health status characteristics for American Indian residents of Arizona.

Following the graphic profile is a detailed description of the 65 indicators. These indicators are organized around 9 major subject areas:

(1) Teen Pregnancies, (2) Maternal Lifestyle and Health Characteristics, (3) Utilization of Prenatal Care Services, (4) Newborn's Health, (5) Mortality from Natural Causes (chronic or infectious diseases), (6) Mortality from Injuries, (7) Age-Specific Mortality, (8) Premature Mortality and (9) Reportable Diseases.

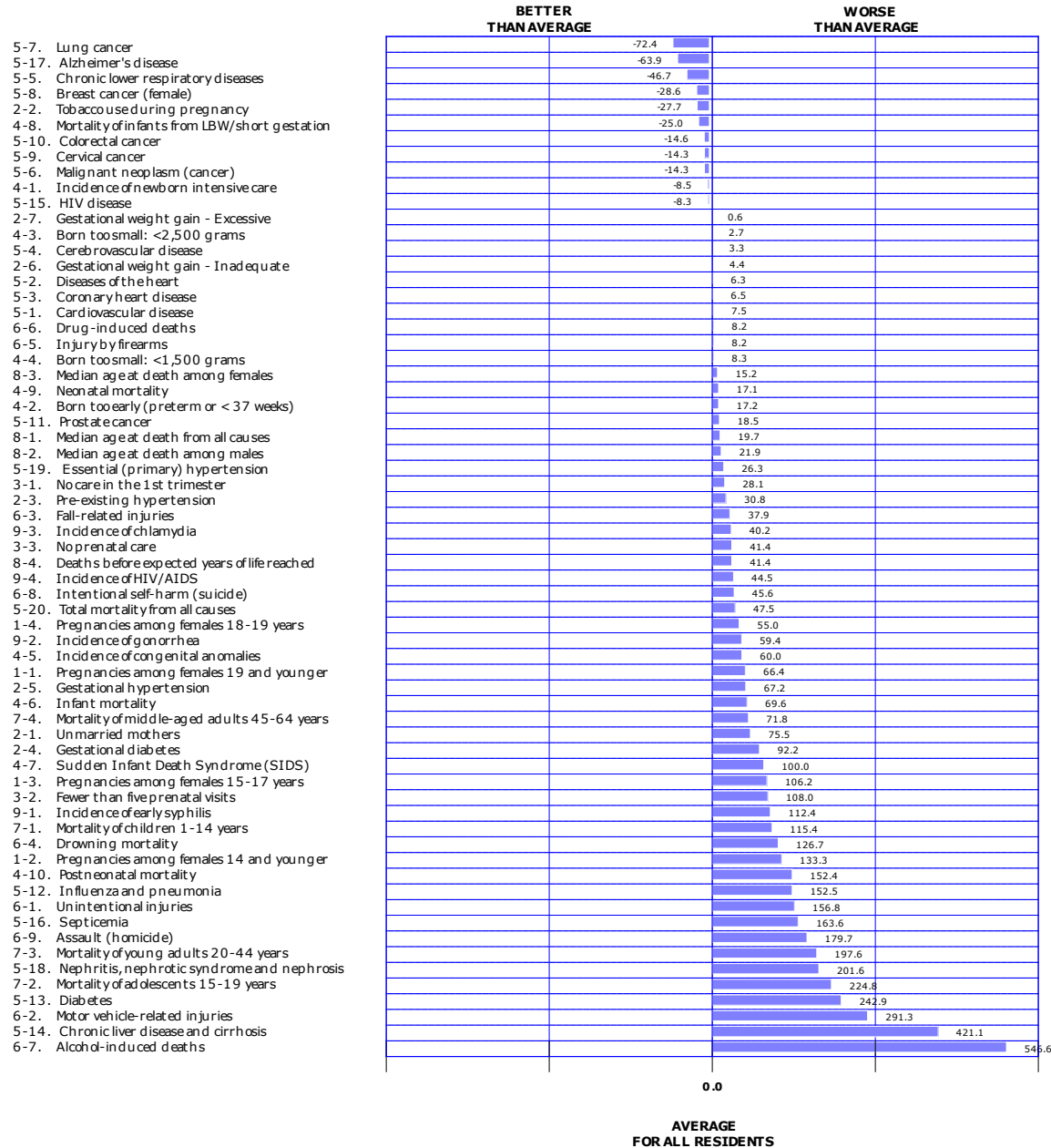**IN 2017, AMERICAN INDIAN RESIDENTS OF ARIZONA:**

- **ranked worse than the statewide average on 54 of 65 health indicators;**
- **had high mortality from alcohol-induced causes, chronic liver disease and cirrhosis, motor vehicle accidents, diabetes, nephritis, assault, septicemia, unintentional injuries, influenza and pneumonia, post-neonatal mortality, drowning, and sudden infant death syndrome: all contributing to the premature death rate of 77.9 percent.**
- **ranked poorly on measures of maternal lifestyle and health, as well as in utilization of prenatal care;**
- **on average were 15 years younger at time of death compared to all racial/ethnic groups;**
- **ranked better than average on a number of health indicators including: mortality rates for several chronic diseases (lung cancer, Alzheimer's disease, chronic lower respiratory diseases, breast cancer, colorectal cancer, cervical cancer, malignant neoplasms, and HIV disease), tobacco use during pregnancy, mortality of infants due to low birth weight, and incidence of newborn intensive care.**

* The comparative risk profiles for American Indian or Alaska Native, White non-Hispanic, Hispanic or Latino, Black or African American, and Asian or Pacific Islander residents of Arizona were developed for a report "***Differences in the Health Status among Racial/Ethnic Groups***". This publication is available online at http://pub.azdhs.gov/health-stats/report/dhsag/index.php.

For consistency, the signs + and – for scores indicating the median age at death as higher or lower than the statewide average were reversed (indicators 8-1, 8-2, 8-3). Otherwise, a lower-than-average median age at death would signify a better than average standing on these indicators. A lower-than-average median age at death obviously reflects a worse off life expectancy.

2017 RISK PROFILE OF AMERICAN INDIANS

(Percent above or below the average rate or ratio of all Arizona residents in 2017

		BETTER THAN AVERAGE	WORSE THAN AVERAGE
5-7.	Lung cancer	-72.4	
5-17.	Alzheimer's disease	-63.9	
5-5.	Chronic lower respiratory diseases	-46.7	
5-8.	Breast cancer (female)	-28.6	
2-2.	Tobacco use during pregnancy	-27.7	
4-8.	Mortality of infants from LBW/short gestation	-25.0	
5-10.	Colorectal cancer	-14.6	
5-9.	Cervical cancer	-14.3	
5-6.	Malignant neoplasm (cancer)	-14.3	
4-1.	Incidence of newborn intensive care	-8.5	
5-15.	HIV disease	-8.3	
2-7.	Gestational weight gain - Excessive		0.6
4-3.	Born too small: <2,500 grams		2.7
5-4.	Cerebrovascular disease		3.3
2-6.	Gestational weight gain - Inadequate		4.4
5-2.	Diseases of the heart		6.3
5-3.	Coronary heart disease		6.5
5-1.	Cardiovascular disease		7.5
6-6.	Drug-induced deaths		8.2
6-5.	Injury by firearms		8.2
4-4.	Born too small: <1,500 grams		8.3
8-3.	Median age at death among females		15.2
4-9.	Neonatal mortality		17.1
4-2.	Born too early (preterm or < 37 weeks)		17.2
5-11.	Prostate cancer		18.5
8-1.	Median age at death from all causes		19.7
8-2.	Median age at death among males		21.9
5-19.	Essential (primary) hypertension		26.3
3-1.	No care in the 1st trimester		28.1
2-3.	Pre-existing hypertension		30.8
6-3.	Fall-related injuries		37.9
9-3.	Incidence of chlamydia		40.2
3-3.	No prenatal care		41.4
8-4.	Deaths before expected years of life reached		41.4
9-4.	Incidence of HIV/AIDS		44.5
6-8.	Intentional self-harm (suicide)		45.6
5-20.	Total mortality from all causes		47.5
1-4.	Pregnancies among females 18-19 years		55.0
9-2.	Incidence of gonorrhea		59.4
4-5.	Incidence of congenital anomalies		60.0
1-1.	Pregnancies among females 19 and younger		66.4
2-5.	Gestational hypertension		67.2
4-6.	Infant mortality		69.6
7-4.	Mortality of middle-aged adults 45-64 years		71.8
2-1.	Unmarried mothers		75.5
2-4.	Gestational diabetes		92.2
4-7.	Sudden Infant Death Syndrome (SIDS)		100.0
1-3.	Pregnancies among females 15-17 years		106.2
3-2.	Fewer than five prenatal visits		108.0
9-1.	Incidence of early syphilis		112.4
7-1.	Mortality of children 1-14 years		115.4
6-4.	Drowning mortality		126.7
1-2.	Pregnancies among females 14 and younger		133.3
4-10.	Postneonatal mortality		152.4
5-12.	Influenza and pneumonia		152.5
6-1.	Unintentional injuries		156.8
5-16.	Septicemia		163.6
6-9.	Assault (homicide)		179.7
7-3.	Mortality of young adults 20-44 years		197.6
5-18.	Nephritis, nephrotic syndrome and nephrosis		201.6
7-2.	Mortality of adolescents 15-19 years		224.8
5-13.	Diabetes		242.9
6-2.	Motor vehicle-related injuries		291.3
5-14.	Chronic liver disease and cirrhosis		421.1
6-7.	Alcohol-induced deaths		545.6

0.0

AVERAGE
FOR ALL RESIDENTS

AMERICAN INDIANS' STANDING IN ARIZONA IN 2017
ON 65 INDICATORS OF HEALTH STATUS

1. TEEN PREGNANCIES

(Number of pregnancies per 1,000 females in specified age group)

Figure Number	Indicator	2017 rate for American Indians	Percent above or below the average rate for all groups	Average rate for all groups in 2017	Definitions
1-1	Pregnancies among females 19 and younger	22.8	66.4	13.7	The sum of live births, fetal deaths, and abortions per 1,000 females aged 19 or younger.
1-2	Pregnancies among females 14 and younger	0.7	133.3	0.3	The sum of live births, fetal deaths, and abortions per 1,000 females aged 14 or younger.
1-3	Pregnancies among females 15-17 years old	23.3	106.2	11.3	The sum of live births, fetal deaths, and abortions per 1,000 females aged 15-17 years.
1-4	Pregnancies among females 18-19 years old	78.9	55.0	50.9	The sum of live births, fetal deaths, and abortions per 1,000 females aged 18-19 years.

2. MATERNAL LIFESTYLE AND HEALTH CHARACTERISTICS

(All rates are per 100 live births)

Figure Number	Indicator	2017 rate for American Indians	Percent above or below the average rate for all groups	Average rate for all groups in 2017	Definitions
2-1	Unmarried mothers	77.9	75.5	44.4	The number of births to unmarried mothers per 100 births.
2-2	Tobacco use during pregnancy	3.4	-27.7	4.7	The number of mothers giving birth who self-reported tobacco use during pregnancy per 100 births.
2-3	Pre-existing hypertension	1.7	30.8	1.3	Blood pressure persistently greater than 140/90, diagnosed prior to onset of pregnancy or before the 20th week of gestation (the number of cases per 100 births).
2-4	Gestational diabetes	14.8	92.2	7.7	Metabolic disorder characterized by excessive discharge of urine and persistent thirst; includes juvenile onset, adult onset, and gestational diabetes during pregnancy (the number of cases per 100 births).
2-5	Gestational hypertension	11.2	67.2	6.7	An increase in blood pressure of at least 30 mm hg systolic or 15 mm hg diastolic on two measurements taken 6 hours apart after the 20th week of gestation (the number of cases per 100 births).
2-6	Gestational weight gain - Inadequate	23.5	4.4	22.5	The number of women giving birth whose gestational weight gain was inadequate in relation to pre-pregnancy body mass index (BMI).
2-7	Gestational weight gain - Excessive	46.5	0.6	46.2	The number of women giving birth whose gestational weight gain was excessive in relation to pre-pregnancy body mass index (BMI).

**AMERICAN INDIANS' STANDING IN ARIZONA IN 2017
ON 65 INDICATORS OF HEALTH STATUS (continued)**

3. UTILIZATION OF PRENATAL CARE SERVICES

(Per 100 live births)

Figure Number	Indicator	2017 rate for American Indians	Percent above or below the average rate for all groups	Average rate for all groups in 2017	Definitions
3-1	No care in the 1st trimester	40.6	**28.1**	31.7	The number of mothers giving birth who received no prenatal care in the 1st trimester of pregnancy per 100 births.
3-2	Fewer than five prenatal visits	15.6	**108.0**	7.5	The number of mothers giving birth who had fewer than five prenatal visits during pregnancy per 100 births.
3-3	No prenatal care	4.1	**41.4**	2.9	The number of mothers giving birth who received no prenatal care during pregnancy per 100 births.

4. NEWBORN'S HEALTH

(Infant, neonatal, and postneonatal rates are per 1,000 live births. All other indicators are expressed per 100 live births)

Figure Number	Indicator	2017 rate for American Indians	Percent above or below the average rate for all groups	Average rate for all groups in 2017	Definitions
4-1	Incidence of newborn intensive care	6.5	**-8.5**	7.1	The number of babies admitted to Newborn Intensive Care units per 100 births.
4-2	Born too early (preterm or < 37 weeks)	10.9	**17.2**	9.3	The number of births before 37 weeks of gestation per 100 births. Preterm is any neonate whose birth occurs through the end of the last day of the 37th week (259th day), following onset of the last menstrual period.
4-3	Born too small: low-birthweight (<2,500 grams)	7.7	**2.7**	7.5	The number of newborns weighing less than 2,500 grams per 100 births. Low-birthweight is any neonate weighing less than 2,500 grams at birth (less than 5 pounds 8 ounces).
4-4	Born too small: very low-birthweight (<1,500 grams)	1.3	**8.3**	1.2	The number of newborns weighing less than 1,500 grams per 100 births. Very low-birthweight is any neonate whose weight at birth is 1,500 grams or less (less than 3 pounds 5 ounces).
4-5	Incidence of congenital anomalies (birth defects)	0.8	**60.0**	0.5	The numbers of babies born with birth defects per 100 births.
4-6	Infant mortality	9.5	**69.6**	5.6	The number of infant deaths per 1,000 live births. Infant death is any death at any time from birth up to, but not including, the first year of age (364 days, 23 hours, 59 minutes from the moment of birth).
4-7	Sudden Infant Death Syndrome (SIDS)	0.4	**100.0**	0.2	The number of infant deaths from Sudden Infant Death Syndrome (ICD-10 code R95) per 1,000 live births.
4-8	Mortality of infants from low birthweight/short gestation	0.6	**-25.0**	0.8	The number of infant deaths from low-birthweight/short gestation (ICD-10 code P07) per 1,000 live births.
4-9	Neonatal mortality	4.1	**17.1**	3.5	The number of neonatal deaths per 1,000 live births. Neonatal death is death of a liveborn neonate before the neonate becomes 28 days old (up to and including 27 days, 23 hours, 59 minutes from the moment of birth).
4-10	Postneonatal mortality	5.3	**152.4**	2.1	The number of postneonatal deaths per 1,000 live births. Postneonatal death is any death of a liveborn infant at least 28 days of age but less than one year of age.

5. MORTALITY FROM NATURAL CAUSES (chronic or infectious diseases)

(Number of deaths per 100,000 population age-adjusted to 2000 standard. The causes of death are classified by the Tenth Revision of the International Classification of Diseases or ICD-10)

Figure Number	Indicator	2017 rate for American Indians	Percent above or below the average rate for all groups	Average rate for all groups in 2017	Definitions
5-1	Cardiovascular disease	204.2	7.5	189.9	The number of deaths from cardiovascular diseases (ICD-10 codes I00-I78) per 100,000 age-adjusted population.
5-2	Diseases of the heart	150.9	6.3	141.9	The number of deaths from disease of the heart (ICD-10 codes I00–I09, I11, I13, I20–I51) per 100,000 age-adjusted population.
5-3	Coronary heart disease	109.5	6.5	102.8	The number of deaths from coronary heart disease (ICD-10 codes I200-I259) per 100,000 age-adjusted population.
5-4	Cerebrovascular disease	31.7	3.3	30.7	The number of deaths from cerebrovascular disease (ICD-10 codes I60–I69) per 100,000 age-adjusted population.
5-5	Chronic lower respiratory diseases	22.9	-46.7	43.0	The number of deaths from chronic lower respiratory diseases (ICD-10 codes J40–J47) per 100,000 age-adjusted population.
5-6	Malignant neoplasm (cancer)	117.1	-14.3	136.6	The number of deaths from cancer (ICD-10 codes C00–C97) per 100,000 age-adjusted population.
5-7	Lung cancer	8.5	-72.4	30.8	The number of deaths from lung cancer (ICD-10 codes C33–C34) per 100,000 age-adjusted population.
5-8	Breast cancer	13.0	-28.6	18.2	The number of deaths from breast cancer (ICD-10 code C50) per 100,000 age-adjusted female population.
5-9	Cervical cancer	1.8	-14.3	2.1	The number of deaths from cervical cancer (ICD-10 code C53) per 100,000 age-adjusted female population.
5-10	Colorectal cancer	11.1	-14.6	13.0	The number of deaths from colorectal cancer (ICD-10 codes C18–C21) per 100,000 age-adjusted population.
5-11	Prostate cancer	19.9	18.5	16.8	The number of deaths from prostate cancer (ICD-10 code C61) per 100,000 age-adjusted male population.
5-12	Influenza and pneumonia	25.0	152.5	9.9	The number of deaths from influenza and pneumonia (ICD-10 codes J10–J18) per 100,000 age-adjusted population.
5-13	Diabetes	81.6	242.9	23.8	The number of deaths from diabetes (ICD-10 codes E10–E14) per 100,000 age-adjusted population.
5-14	Chronic liver disease and cirrhosis	74.0	421.1	14.2	The number of deaths from chronic liver disease and cirrhosis (ICD-10 codes K70, K73–K74) per 100,000 age-adjusted population.
5-15	HIV disease	1.1	-8.3	1.2	The number of deaths from HIV disease (ICD-10 codes B20-B24) per 100,000 age-adjusted population.
5-16	Septicemia	14.5	163.6	5.5	The number of deaths from septicemia (ICD-10 codes A40-A41) per 100,000 age-adjusted population.
5-17	Alzheimer's disease	12.7	-63.9	35.2	The number of deaths from Alzheimer's disease (ICD-10 code G30) per 100,000 age-adjusted population.
5-18	Nephritis, nephrotic syndrome and nephrosis (kidney disease)	18.7	201.6	6.2	The number of deaths from nephritis, nephritic syndrome, and nephrosis (ICD-10 codes N00–N07, N17–N19,N25–N27) per 100,000 age-adjusted population.
5-19	Essential (primary) hypertension	14.9	26.3	11.8	The number of deaths from essential (primary) hypertension (ICD-10 codes I10, I12) per 100,000 age-adjusted population.
5-20	Total mortality from all causes	1001.9	47.5	679.3	Total number of deaths from all causes per 100,000 age-adjusted population.

6. MORTALITY FROM INJURIES

(Number of deaths per 100,000 population age-adjusted to 2000 standard. The causes of death are classified by the Tenth Revision of the International Classification of Diseases or ICD-10. Drug-induced deaths include accidental, suicidal, and homicidal poisoning by drugs, but also disorders due to use of psychoactive substances. Alcohol-induced deaths include accidental, suicidal, and homicidal by drugs, but also disorders due to use of alcohol)

Figure Number	Indicator	2017 rate for American Indians	Percent above or below the average rate for all groups	Average rate for all groups in 2017	Definitions
6-1	Unintentional injuries	142.0	156.8	55.3	The number of deaths from unintentional injuries in accidents (ICD-10 codes V01–X59, Y85–Y86) per 100,000 age-adjusted population.
6-2	Motor vehicle-related injuries	54.0	291.3	13.8	The number of deaths from motor vehicle-related injuries (ICD-10 codes V02–V04, V09.0, V09.2, V12–V14, V19.0–V19.2, V19.4–V19.6,V20–V79, V80.3–V80.5,V81.0–V81.1,V82.0–V82.1, V83–V86, V87.0–V87.8, V88.0–V88.8, V89.0, V89.2) per 100,000 age-adjusted population.
6-3	Fall-related injuries	17.1	37.9	12.4	The number of deaths from fall-related injuries (ICD-10 codes W00-W19) per 100,000 age-adjusted population.
6-4	Drowning mortality	3.4	126.7	1.5	The number of deaths due to accidental drowning and submersion (ICD-10 codes W65-W74) per 100,000 age-adjusted population.
6-5	Injury by firearms	17.1	8.2	15.8	The number of deaths by firearms (ICD-10 codes W32–W34, X72–X74, X93–X95, Y22–Y24, Y 35.0) per 100,000 age-adjusted population. Causes of death attributable to firearm mortality include accidental discharge of firearms, intentional self-harm (suicide) by discharge of firearms, assault (homicide) by discharge of firearms, discharge of firearms -undetermined intent, and legal intervention involving firearm discharge. Deaths from injury by firearms exclude deaths due to explosives and other causes indirectly related to firearms.
6-6	Drug-induced deaths	25.2	8.2	23.3	The number of drug-induced deaths (ICD-10 codes F11.0–F11.5, F11.7–F11.9, F12.0–F12.5, F12.7–F12.9, F13.0–F13.5, F13.7–F13.9, F14.0–F14.5, F14.7–F14.9, F15.0–F15.5, F15.7–F15.9, F16.0–F16.5, F16.7–F16.9, F17.0, F17.3–F17.5, F17.7–F17.9, F18.0–F18.5, F18.7–F18.9, F19.0–F19.5, F19.7–F19.9, X40–X44, X60–X64, X85, Y10–Y14) per 100,000 age-adjusted population. Causes of death attributable to drug-induced mortality include selected codes from the ICD-10 title Mental and behavioral disorders due to psychoactive substance use, accidental poisoning by and exposure to drugs, medicaments and biological substances; intentional self-poisoning (suicide) by and exposure to drugs; assault (homicide) by drugs, medicaments and biological substances; and poisoning by and exposure to drugs, medicaments and biological substances, undetermined intent. Drug-induced causes exclude accidents, homicides, and other causes indirectly related to drug use. Also excluded are newborn deaths associated with mother's drug use.
6-7	Alcohol-induced deaths	104.1	546.6	16.1	The number of alcohol-induced deaths (ICD-10 codes F10, G31.2, G62.1, I42.6, K29.2, K70, R78.0, X45, X65, Y15) per 100,000 age-adjusted population. Causes of death attributable to alcohol-induced mortality include mental and behavioral disorders due to alcohol use, degeneration of nervous system due to alcohol, alcoholic polyneuropathy, alcoholic cardiomyopathy, alcoholic gastritis, alcoholic liver disease, finding of alcohol in blood, accidental poisoning by and exposure to alcohol, intentional self-poisoning by and exposure to alcohol; and poisoning by and exposure to alcohol, undetermined intent. Alcohol-induced causes exclude accidents, homicides, and other causes indirectly related to alcohol use.
6-8	Intentional self-harm (suicide)	26.2	45.6	18.0	The number of deaths due to intentional self-harm (ICD-10 codes X60-X84, Y87.0) per 100,000 age-adjusted population.
6-9	Assault (homicide)	17.9	179.7	6.4	The number of deaths due to assault (homicide; ICD-10 codes X85-X09, Y87.1) per 100,000 age-adjusted population.

7. PREMATURE MORTALITY

(Number of deaths per 100,000 persons in specific group)

Figure Number	Indicator	2017 rate for American Indians	Percent above or below the average rate for all groups	Average rate for all groups in 2017	Definitions
7-1	Mortality of children 1-14 years old	39.2	**115.4**	18.2	The number of deaths per 100,000 children 1-14 years old.
7-2	Mortality of adolescents 15-19 years old	174.4	**224.8**	53.7	The number of deaths per 100,000 adolescents 15-19 years old.
7-3	Mortality of young adults 20-44 years old	463.9	**197.6**	155.9	The number of deaths per 100,000 young adults 20-44 years old.
7-4	Mortality of middle-aged adults 45-64 years old	1076.6	**71.8**	626.8	The number of deaths per 100,000 middle-aged adults 45-64 years old.

8. AGE-SPECIFIC MORTALITY

Figure Number	Indicator	2017 rate for American Indians	Percent above or below the average for all groups*	Average rate for all groups in 2017	Definitions
8-1	Median age at death from all causes	61.0	**19.7**	76.0	The median age (the age in the middle) of Arizonans who died in 2017.
8-2	Median age at death from all causes among males	57.0	**21.9**	73.0	The median age (the age in the middle) of Arizona males who died in 2017
8-3	Median age at death from all causes among females	67.0	**15.2**	79.0	The median age (the age in the middle) of Arizona females who died in 2017.
8-4	Percent of total deaths before expected years of life reached	77.9	**41.4**	55.1	The number of deaths before reaching 78.8 years (the life expectancy of all U.S. residents in 2017) per 100 deaths.

Note: For consistency, the signs + and − for scores indicating the median age at death as higher or lower than the statewide average were reversed.

9. REPORTABLE DISEASES

(Number of cases per 100,000 persons in specific group)

Figure Number	Indicator	2017 rate for American Indians	Percent above or below the average rate for all groups	Average rate for all groups in 2017	Definitions
9-1	Incidence of early syphilis	48.0	**112.4**	22.6	Number of reported cases of early syphilis per 100,000 population.
9-2	Incidence of gonorrhea	287.7	**59.4**	180.5	Number of reported cases of gonorrhea per 100,000 population.
9-3	Incidence of chlamydia	801.6	**40.2**	571.8	Number of reported cases of chlamydia per 100,000 population.
9-4	Incidence of HIV/AIDS	15.9	**44.5**	11.0	Number of reported cases of HIV/AIDS per 100,000 population.